REMARKS

Claims 16-29 are pending and under consideration. Claims 16-29 have been amended. Support for the amendments to claims 16-29 may be found in the claims as originally filed. Since the amendments to claims 16-29 are substantially cosmetic in nature, and are concerned, in the main, with semantics, the amendment is submitted to be unrelated to patentability. Further reconsideration is requested based on the foregoing amendment and the following remarks.

Response to Arguments:

The Applicants appreciate the consideration given to their arguments. The Applicants, however, are disappointed that their arguments were not found to be persuasive. The Office Action asserts in section 19 at pages 10 and 11, in Response 1, that:

> Prior art (Miura et al.) do disclose a designer (i.e. user) designate re-implementation of package design . . . placing components (i.e., processing related information) by interactive edit (on an edit window) – [Fig. 9; col. 16, lines 11-15].

This is submitted to be incorrect. Miura, rather, makes the designer start the automated placement process over from the halfway point if the microprocessor 6 fails to place the components. There is no reason to believe, based on Miura, that the designer selects and designates any processing-related information, or that any processing related information is even displayed in high resolution display 2. Indeed, since all the designer does is start the process over from the halfway point if the microprocessor 6 fails to place the components, there is no need for the designer to select or designate any processing-related information, nor for any processing related information to be displayed in high-resolution display 2. In particular, as described at column 16, lines 11-15:

> If components cannot be placed, microprocessor 6 makes high resolution display 2 display a failure of packaging (Step 214), and makes a designer designate re-implementation of packaging design from the halfway of placing components by interactive edit (Step 215).

Since, in Miura, the designer starts the automated placement process over from the halfway point if the microprocessor 6 fails to place the components, there is no use for, let alone any disclosure of, "said user selects and designates said processing-related information displayed on said window," as recited in claim 18.

The Office Action asserts further in section 19 at page 11, in Response 2, that:

PCB CAD is an interactive computer design tool, which is implemented by a user

> in determination of placing position for each component on a PCB design using an edit display (window). Notice that (1) when implementing a CAD tool, it is a designer (user), who makes decision/selection in designating placing position (2) routing path between components is determined after positions of the components are designed by a designer (user) (3) interactive CAD tool can be implemented based on a selection chosen by a designer using a mouse.

This is also submitted to be incorrect. To the contrary, in Miura, the placement position of a component on a circuit board is determined by the method of elastic center, not by the designer. In particular, as described in the Abstract:

> When a component is placed on a circuit board, a placement position is determined by method of elastic center. Then, it is determined whether the component was placed on the circuit board. After that, connectors are routed between the component and a design candidate component which is already placed. After that, the next component is set, and the above mentioned packaging processing is repeated.

Since, in Miura, the placement position of a component on a circuit board is determined by the method of elastic center, there is no use for, let alone any disclosure of, "said user selects and designates said processing-related information displayed on said window," as recited in claim 18.

> The Office Action asserts further in section 19 at page 11, in Response 3, that:
>
> Prior art (Miura et al.) discloses displaying placement and wiring graphic information on a graphic display – [Fig. 17A-17B; col. 3, line 19-37; col. 14, line 29-33].

Even if, however, Miura did show displaying placement and wiring graphic information on a graphic display, simply displaying placement and wiring graphic information on a graphic display still does not amount to "selecting an area containing said displayed placement and wiring graphics on said editor screen," as recited in claim 20. In Miura, rather, since the user is not involved in component placement or routing path determination anyway, there is no use for, let alone any disclosure of, "selecting an area containing said displayed placement and wiring graphics on said editor screen," as recited in claim 20.

> Finally, the Office Action asserts in section 19 at page 11, in Response 4, that:
>
> But Miura et al. (Prior art) discloses the subject matter in Fig. 17A-17C; see details included in explanation in response to Claim 16 given above.

This, too, is submitted to be incorrect. Since, in Miura, as discussed above, the user is not involved in component placement or routing path determination anyway, there is no use for, let alone any disclosure of, "redisplaying the placement and wiring graphics associated to said

designated modification information on said editor screen," as recited in claim 16. Further reconsideration is thus requested.

Objections to the Claims:

Claim 29 was objected to for various informalities. Claim 29 was amended in substantial accord with the Examiner's suggestions. The Examiner's suggestions are appreciated. Withdrawal of the objection is earnestly solicited.

Claim Rejections - 35 U.S.C. § 102:

Claims 18, 20, 22, 23, 24, and 27 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,847,968 to Miura et al. (hereinafter "Miura"). The rejection is traversed to the extent it would apply to the claims as amended. Reconsideration of the rejection is earnestly solicited.

The fifth clause of claim 18 recites:

> Said user selects and designates from said list of said processing-related information displayed on said window.

Miura neither teaches, discloses, nor suggests, "said user selects and designates from said list of said processing-related information displayed on said window," as recited in claim 18. Miura mentions no designation of processing-related information by a designer at all, contrary to the assertion in the Office Action in the fourth bullet in section 5 at page 3. In Miura, rather, selecting and determining, or designating, is taken care of by the printed circuit board CAD device itself, as described at column 3, lines 50-53:

> (1) A printed circuit board CAD device for determining a placement position of each component and routing paths of connectors between them in a component group in a schematic circuit diagram.

Since, in Miura, the placement position of each component is determined by the printed circuit board CAD device, there is no use for, let alone any disclosure of, "said user selects and designates from said list of said processing-related information displayed on said window," as recited in claim 18.

Furthermore, in Miura, component placement positions have *already* been determined by the printed circuit board CAD device, as described at column 3, lines 56-63:

> Avoiding components whose placement positions are already determined, a next component waiting to be read out from the placement order storage unit; an occupied area storage unit in which occupied area information describing, when a

> new component is read out by the read-out unit, an area occupied by a component whose placement position is already determined and connectors whose routing paths are already determined on a circuit board is stored.

Since, in Miura, the component placement positions have already been determined by the printed circuit board CAD device, there is no use for, let alone any disclosure of, "said user selects and designates from said list of said processing-related information displayed on said window," as recited in claim 18.

Furthermore, in Miura, a routing path determination unit determines routing paths of connectors between components whose placement positions have *already* been determined, as described at column 4, lines 56-63:

> A routing path determination unit for determining, when the placement position of the component is determined, routing paths of connectors between terminals of the component and terminals of a component whose placement position is already determined, avoiding the occupied area on the circuit board by referring to the occupied area information already stored in the occupied area storage unit.

Since, in Miura, the routing path determination unit determines routing paths of connectors between components whose placement positions have already been determined, there is no use for, let alone any disclosure of, "said user selects and designates from said list of said processing-related information displayed on said window," as recited in claim 18.

The user's involvement in Miura, rather, is limited to moving a mouse cursor and typing on a keyboard, as described at column 14, lines 19-23:

> Input operation unit 4 comprises: a pointing device for moving a mouse cursor on high resolution display 2 according to operation of a user; and a key board for providing input environment of interaction edit on receiving input from a user.

Since, in Miura, the user's involvement is limited to moving a mouse cursor and typing on a keyboard, there is no use for, let alone any disclosure of, "said user selects and designates from said list of said processing-related information displayed on said window," as recited in claim 18.

In Miura, rather, the circuit design application program is executed using information inputted by a designer, as described at column 12, lines 27-33:

> Storage device 1 stores a circuit design application program for implementing schematic circuit diagram design, various design information inputted by a designer during the circuit design application program is executed, and a packaging design application program for implementing packaging design.

Since, in Miura, the circuit design application program is executed using information inputted by a designer, there is no use for, let alone any disclosure of, "said user selects and designates

from said list of said processing-related information displayed on said window," as recited in claim 18.

The fifth clause of claim 18 recites further:

> Said displayed placement and wiring graphics associated with relevant processing-related information is specified.

Miura neither teaches, discloses, nor suggests, "said displayed placement and wiring graphics associated with relevant processing-related information is specified," as recited in claim 18. In Miura, rather, the user is not involved in component placement or routing path determination, as discussed above. Claim 18 is submitted to be allowable. Withdrawal of the rejection of claim 18 is earnestly solicited.

Claim 20:

The third clause of claim 20 recites:

> Selecting an area containing said displayed placement and wiring graphics on said editor screen, by a user.

Miura neither teaches, discloses, nor suggests, "selecting an area containing said displayed placement and wiring graphics on said editor screen, by a user," as recited in claim 20. In Miura, rather, the user is not involved in component placement or routing path determination, as discussed above with respect to the rejection of claim 18. Claim 20 is thus submitted to be allowable as well, for at least those reasons discussed above with respect to the rejection of claim 18. Withdrawal of the rejection of claim 20 is earnestly solicited.

Claim 22:

The fourth clause of claim 22 recites:

> Highlighting said displayed connecting relationship information between placement and wiring graphics selected by a user and placement and wiring graphics not selected by the user, on said editor screen.

Miura neither teaches, discloses, nor suggests, "highlighting said displayed connecting relationship information between placement and wiring graphics selected by a user and placement and wiring graphics not selected by the user, on said editor screen," as recited in claim 22. In Miura, rather, the user is not involved in component placement or routing path determination, as discussed above with respect to the rejection of claim 18. Claim 22 is thus submitted to be allowable as well, for at least those reasons discussed above with respect to the rejection of claim 18. Withdrawal of the rejection of claim 20 is earnestly solicited. Withdrawal

of the rejection of claim 22 is earnestly solicited.

Claim 23:

The third clause of claim 23 recites:

> When one of said names of placement and wiring graphics raised on said list is selected.

Miura neither teaches, discloses, nor suggests, "when one of said names of placement and wiring graphics raised on said list is selected," as recited in claim 23. In Miura, rather, the user is not involved in component placement or routing path determination, as discussed above with respect to the rejection of claim 18. Claim 23 is thus submitted to be allowable as well, for at least those reasons discussed above with respect to the rejection of claim 18. Withdrawal of the rejection of claim 23 is earnestly solicited.

Claim 24:

The second clause of claim 24 recites:

> Selecting placement and wiring graphics for operation through a placement and wiring processing program.

Miura neither teaches, discloses, nor suggests, "selecting placement and wiring graphics for operation through a placement and wiring processing program," as recited in claim 24. In Miura, rather, the user is not involved in component placement or routing path determination, as discussed above with respect to the rejection of claim 18.

The third clause of claim 24 recites:

> Setting preliminarily a moving direction of said displayed placement and wiring graphics on said editor screen.

Miura neither teaches, discloses, nor suggests, "setting preliminarily a moving direction of said displayed placement and wiring graphics on said editor screen," as recited in claim 24. In Miura, rather, the routing path determination unit determines routing paths of connectors between components whose placement positions have already been determined, as discussed above with respect to the rejection of claim 18. Claim 24 is thus submitted to be allowable as well, for at least those reasons discussed above with respect to the rejection of claim 18. Withdrawal of the rejection of claim 24 is earnestly solicited.

Claim 27:

The fourth clause of claim 27 recites:

> When a portion of said area within said frame is enlarged and displayed on said editor screen, displaying a painted-out pattern inside said frame.

Miura neither teaches, discloses, nor suggests, "when a portion of said area within said frame is enlarged and displayed on said editor screen, displaying a painted-out pattern inside said frame," as recited in claim 27. In Miura, rather, the user is not involved in component placement or routing path determination, as discussed above with respect to the rejection of claim 18. Claim 27 is thus submitted to be allowable as well, for at least those reasons discussed above with respect to the rejection of claim 18. Withdrawal of the rejection of claim 27 is earnestly solicited.

Claim Rejections - 35 U.S.C. § 103:

Claims 16 and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,050,091 to Rubin (hereinafter "Rubin") in view of Miura. The rejection is traversed. Reconsideration is earnestly solicited.

The fourth clause of claim 16 recites:

> Redisplaying the placement and wiring graphics associated to said designated modification information on said editor screen.

Rubin neither teaches, discloses, nor suggests, "redisplaying the placement and wiring graphics associated to said designated modification information on said editor screen," as recited in claim 16. As Rubin, rather, describes in the Abstract:

> Each component in the database is considered a node, and connections among components are considered as arcs. Changes are permitted only to nodes, and constraints are imposed only upon arcs. When components are changed, the effects of the changes are propagated to surrounding components by the arcs. In this manner the database manager insures that the circuit remains properly connected throughout the design process while allowing the propagation of changes up and down the hierarchy.

Since the database manager of Rubin insures that the circuit remains properly connected throughout the design process while allowing the propagation of changes up and down the hierarchy, Rubin has no need for, "redisplaying the placement and wiring graphics associated to said designated modification information on said editor screen," as recited in claim 16.

Similarly, in Miura, the user is not involved in component placement or routing path

determination, as discussed above with respect to the rejection of claim 18. Miura consequently has no need for "redisplaying the placement and wiring graphics associated to said designated modification information on said editor screen," as recited in claim 16, either. Thus, even if Rubin and Miura were combined as proposed in the Office Action, the claimed invention would not result. Claim 16 is submitted to be allowable. Withdrawal of the rejection of claim 16 is earnestly solicited.

Claim 28:

The third clause of claim 28 recites:

> Redisplaying the placement and wiring graphics associated with said designated modification information on said editor screen when said modification information displayed on said window is designated.

Neither Rubin nor Miura teach, disclose, or suggest, "redisplaying the placement and wiring graphics associated with said designated modification information on said editor screen when said modification information displayed on said window is designated," as recited in claim 28. Rubin has no need for "redisplaying the placement and wiring graphics associated with said designated modification information on said editor screen when said modification information displayed on said window is designated," as discussed above with respect to the rejection of claim 16.

Similarly, in Miura, the user is not involved in component placement or routing path determination, as discussed above with respect to the rejection of claim 18. Miura consequently has no need for "redisplaying the placement and wiring graphics associated with said designated modification information on said editor screen when said modification information displayed on said window is designated," as recited in claim 28, either. Thus, even if Rubin and Miura were combined as proposed in the Office Action, the claimed invention would not result. Claim 28 is thus submitted to be allowable as well, for at least those reasons discussed above with respect to the rejections of claims 16 and 18. Claim 28 is submitted to be allowable. Withdrawal of the rejection of claim 28 is earnestly solicited.

Claim 26:

Claim 26 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Miura in view of U.S. Patent No. 5,247,455 to Yoshikawa (hereinafter "Yoshikawa"). The rejection is traversed. Reconsideration is earnestly solicited.

The second clause of claim 26 recites:

> Selecting a plurality of placement and wiring graphics for operation through a placement and wiring processing program.

Miura neither teaches, discloses, nor suggests, "selecting a plurality of placement and wiring graphics for operation through a placement and wiring processing program," as recited in claim 26. In Miura, rather, the user is not involved in component placement or routing path determination, as discussed above with respect to the rejection of claim 18.

Yoshikawa, for its part, is about "verifying wiring layouts including the steps of preparing a first reference value representing the minimum required distance between each combination of two arbitrary kinds of wiring elements," as described in the Abstract, and has no need for "selecting a plurality of placement and wiring graphics for operation through a placement and wiring processing program," as recited in claim 26, either. Thus, even if Miura and Yoshikawa were combined as proposed in the Office Action, the claimed invention would not result. Claim 26 is submitted to be allowable. Withdrawal of the rejection of claim 26 is earnestly solicited.

Claim 25:

Claim 25 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Miura in view of PowerPoint® software program by Microsoft®. The rejection is traversed. Reconsideration is earnestly solicited.

The second clause of claim 25 recites:

> Selecting for display on an editor screen placement and wiring graphics for operation through a placement and wiring processing program,.

Miura neither teaches, discloses, nor suggests, "selecting for display on an editor screen placement and wiring graphics for operation through a placement and wiring processing program," as recited in claim 25. In Miura, rather, the user is not involved in component placement or routing path determination, as discussed above with respect to the rejection of claim 18. PowerPoint® does not either, and thus cannot make up for the deficiencies of Miura with respect to claim 25. Claim 25 is submitted to be allowable. Withdrawal of the rejection of claim 25 is earnestly solicited.

Allowable Subject Matter:

The Applicant acknowledges with appreciation the allowance of claims 17, 19, 21, and 29.

Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all of claims 16-29 are allowable over the cited references.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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